

Mohave County Miner.

VOL. XXX.

KINGMAN, ARIZONA, SATURDAY, JANUARY 20, 1912.

NO. 17

Cyaniding in Colorado.

Somewhat over a year ago Franklin Gutterman, Colorado manager of the American Smelting and Refining Co. gave eloquent expression to the record of the Centennial State in the sphere of metallurgy. In an address before the Denver Chamber of Commerce he said:

"Colorado's metallurgical engineers, that is, those who have acquired their initial experience in this state, have indisputably stamped their individual equations on metallurgical progress the world over. It was their efforts which have wrought success in the mineral fields of South Africa, New South Wales and Australia. It is to them that the astounding and astonishingly successful copper milling and smelting methods of Montana and Utah are due. It is they who have placed the chlorination and cyanide practice of the Cripple Creek field on the highest plane of metallurgical achievement. It is they who have created a practice of silver-lead smelting which is acknowledged as one to be patterned after in other states, and it is they who are now utilizing to the best and largest extent our present mineral resources and who may be trusted to satisfactorily take care of those which our pluck and energy may yet bring to light.

According to the difficulties which have confronted the introduction of the cyanide process into Colorado has the achievement in this field, pointed out by Mr. Gutterman, been made possible. It is of no small moment that the principal advances in cyaniding to which Colorado is to be credited have resulted from work in a district whose ores have furnished one of the greatest metallurgical problems of the state. The application of cyaniding and variations of the process to the Cripple Creek district has attracted notice to the methods here used from other districts. Pioneer work in this field cannot fail to extend the value of its experience to other states and countries.

But while Colorado has given its share in this respect, it is also ready to receive from others. In a certain way it is a virgin field for the use of improved systems and appliances which have been proven successful on ores not originally considered available. While modern cyaniding has received a great deal of impetus from the experience in this state, much of the state is still open to the benefits of this very achievement here and elsewhere. While the cyanide process is in use at several large plants in the San Juan region, it has not received the attention that it should. Proposals are now on foot for the erection of plants in the vicinity of Shiverton, where there has long been a feeling that the latest practice should be made available for gold ores of that neighborhood. The experience in Cripple Creek has given Boulder county the encouragement that must naturally follow from the consideration that this is a region of sublimely rich ores. At Idaho Springs the Hudson mill is now operating with a combination in which slime agitation with cyanide and filtration are a prominent feature. Many considerations point to Colorado as a most promising section in which to promote the use of this method treatment. The way is open for cyanide experts, both at home and elsewhere, to take advantage of the opportunities that now exist by reason of the peculiar difficulties which have kept the field somewhat in abeyance for the genius of the modern engineer. —Denver Mining Science.

Law of the Apex.

Director of United States Geological Survey Recommends Its Repeal.

The law of the apex has proved more productive of expensive litigation than of economical mining. In many of the more recently established and more progressive mining districts this statute has been made inoperative either by common agreement or by compromise between adjoining owners. Its repeal could not effect established equities under patents already granted,

but would render possible more certain property rights in large mining districts, not as yet discovered, where new and valuable claims will be located a hundred years from now. The unit of disposition should be the claim, preferably square, limited on its four sides by vertical planes, and of a size sufficient to allow the miner occupying two contiguous claims to follow the vein or lode to considerable depth, even if its dip is only 45 degrees. Such definition of a mining claim is found practical in both Mexico and British Columbia, and in the latter country the change from the apex law was effected without trouble or confusion.

The same knowledge of natural conditions that leads to the suggestion of a repeal of the law of the apex forces the further suggestion that discovery of ore in place can not be made universally a prerequisite to the location of a mining claim. Geologic study of ore deposits has furnished examples in a number of regions where the present law can not be complied with, although rich deposits exist underground and their extent can be more definitely surmised than in most places where ore is discovered at the surface. To meet such actual conditions the law should provide for the acquisition of metalliferous mineral land classified as such upon the basis of adequate geologic evidence, whether actual outcrops are present or not. (From 32d Annual Report, Director United States Geological Survey.)

Greatest Railroad Feat of the Year.

The most stupendous and costly piece of railroad work in the United States during 1911 was the building of the high line through the Meadow Valley Wash on the Salt Lake Route. While work was commenced on the high line during the latter part of 1910, by far the greater part of the work was done in the past year, says the Salt Lake Tribune and Evening Telegram in its big New Year special number.

It is hard for the layman who has never been over the old line and then over the new line to realize the extent of the work or of the money spent on this improvement.

The Salt Lake Route was opened for passenger traffic between Salt Lake City and Los Angeles on May 1, 1905. On March 25 of the following year the company suffered its first washout in the Meadow Valley; the road was out of commission for through traffic until April 25 of that year. In August of the same year a small washout put the road out of commission for three days. February 22, 1907, the third washout came, and it was March 2 before the road was again in commission for thru traffic. Three days later, March 5, another flood came down the narrow valley, and the road did not resume until April 12.

December 31, 1909, the worst flood in the known history of that part of Nevada commenced and raged for three days. Mile after mile of the track of the company was washed out and carried away. Bridges were torn out and carried away as though they were but straws.

The disaster was one to appall even the most stout hearted railroad man, and for a time it was predicted that the company would never rebuild, at least through that part of the country.

A number of new surveys were made, and then came the order to rebuild the old track for temporary use, and a new and permanent high line through the famous wash country.

By the time the old line had been reconstructed the company had spent over 7,000,000 in addition to the original cost of construction on this part of its roadbed. The road was reopened for transportations on June 10, 1910, but it was not until several months later that actual work was commenced on the new high line. This was completed but a few weeks ago.

Some idea of the magnitude of this work may be gathered from the following figures of the new high line: Length, seventy-six miles. Cost, 5,000,000.

Time of building, about thirteen months.

Ten tunnels, aggregate length 5072 feet.

Twenty-four bridges, solid steel in concrete abutments, and piers sunk to bedrock. The former line had eighty-five bridges in the same length.

With the completion of the high line, officers of the company and railroad engineers declare that the company has little to fear in the future from high waters in that section.

In the past year the company commenced the building of a branch line from Moapa to St. Thomas, twenty-six miles. A part of this line is completed, and as soon as the weather will permit next spring, work will be resumed. This branch line will open up a rich agricultural, mining and grazing country, and promises to be an important feeder to the main line.

The company in 1911 completed its shops at Las Vegas, and they are declared to be among the finest railroad shops in the country. Much additional equipment has been purchased and more has been added for the coming year.

Officers of the company declare that the close of 1911 found the road in the best financial condition of its history.

The engineer in charge of this great piece of engineering is a Mohave county boy, Arthur Maguire. Mr. Maguire took his first lesson in engineering in this county, later going on to Salt Lake railroad with Chief Engineer McCartney, then becoming resident engineer of the road. Mr. Maguire's sisters reside in Kingman.

Barrow in Mine To Get Evidence

A Park City dispatch says:—To gather evidence for introduction at the trial of his suit for 80,000 or more against the Silver King Coal and Mines company, Nicholas Treweek, president of the Conklin Mining company, with a company of expert mining engineers, is here conducting a thorough examination of the lateral tunnels, lodes and interior workings of the Silver King mining properties. The examination is being made under the protection of an order from the United States court.

The Treweek company claims that the Silver King company has violated the apex principal of mining by abstracting ores totaling in value more than the amount mentioned, belonging rightfully to the neighboring allied Conklin and Arthur claims, because the apexes of the lodes being worked in the Silver King originate on the Conklin and Arthur properties.

The suit will be heard January 15 in the federal court in Salt Lake. It is one of the most important mining suits in recent years.

The engineers here with Treweek have probed deep into the tortuous windings of the lateral tunnels of the Silver King properties and at the conclusion of their investigation will have followed every vein and lode to their origin.

Officials of the Silver King companies maintain that the apexes of the lodes are really in the Brave Columbia claim, beyond and adjoining the Conklin and Arthur claims. The Brave Columbia is one of the Silver King properties.

The litigation has been hanging in the federal court since 1908, and is represented by hundreds of sheets of typewritten pleadings, complaints, counter complaints, answers and supplemental proceedings.

Driving of Tunnels by Gold Canyon.

A Ely, Nevada dispatch says:—In the Cocomongo district, on the west side of the Egan range about 10 miles south from Cherry Creek, the new Gold Canyon Consolidated company is driving ahead in three tunnels and hopes are entertained that the company will continue working to develop the large holdings which it controls under the terms of a lease from the Stuart Holding company. Recently the property has been examined by

mining experts from Scotland, who will make a report to the home office and by which the directors of the company doubtless will be guided in making plans for future work.

This company is backed by wealthy Scotchmen who are able to go ahead on almost any scale they may decide upon, as it is only a question of how much money they determine to contribute. The holdings are very promising on the surface, and from some of the claims fabulously rich gold ore has been taken which was found in narrow seams in large ledges. A long tunnel was driven into the mountain for many hundreds of feet under the Stuart management, but which was not driven quite far enough to get under the proppings of the ledges. The district has never been prospected very deep on any of the ledges, but they are expected to prove extremely rich in gold when deep mining on them is accomplished.

There is a fine mill a couple of miles from the tunnels, and should the present work result in developing sufficient ore the mill will be started in the spring and work will be given to an additional number of men.

More Good Finds in Chiquita Section.

Recent developments in the Chiquita Hills and Lost Basin country, to the south of Searchlight, all indicate that the district mentioned has all the makings of a first class mining section.

Theo. Park, who was up from that section this week, reports that the work on the strike adjoining the Chiquita mine, which was made by Mr. Park and Wm. Kirwin recently, and reported in the Bulletin two weeks ago has exposed a ten-foot ledge, four feet of which, conservatively estimated, gives values of 100%, while picked samples show from 300% to 700%. Besides these four feet, there are six feet next to the foot wall that horn from 7% to 10%. Mr. Park states that he and his partner now have fifteen tons of ore blocked out. In the Lost Basin country, one mile south of Chiquita, on a property belonging to Messrs. Park and Kirwin, Mr. Park reports that a two-foot ledge yielding workings of from 12% to 15% has been uncovered.

About half way between the Chiquita and the last named property there is a piece of ground belonging to T. A. Brown and Messrs. Kirwin and Park on which there are two ledges, one eighteen inches and the other twelve inches in width. From these has been taken rock that workings indicate to have a value of at least 75%. The deepest work so far is an eighteen foot shaft. Working so far on indicates that the ledge gets bigger and stronger as it goes down.

Mr. Park reports that within the space of half a mile there are five ledges, all of which yield values. He states that without exception every east and west ledge that he has prospected on in that section yields values, and that the ledges can be traced clearly for miles, as a matter of fact, from Hart to the Colorado River, and even across the river into Arizona as far as the Gold Road mine.—Searchlight Bulletin.

Fifty-Eight Cars Sent out From Lordsburg.

A Lordsburg, N. M. dispatch says:—There were only 58 cars of ore shipped from Lordsburg during December. This small shipment was caused not by lack of ore, but because it was impossible to get the ore from some of the mines to the railroad, on account of the muddy roads, caused by the unusual snows of last month. The chief sufferer was the 85 company. The road from the 85 mine out to the open country lies with a northern exposure which the sun could not shine on but a few hours a day, and the mud was good and plenty. A load of ore with a six-horse team, pulling down hill got stalled in this stretch of mud. This week the company began hauling rock and waste from the old 85 dump and spreading it on the road. It will get a road bed of solid rock through the worst stretch. The rock cannot make mud, and will be permanent.

Summit Mine Has Reverted To Gibson Co.

The Summit mine, formerly known as the Gibson mine, was taken possession of last week by the Gibson Copper Company, owners of the property.

Between 1906 and 1910 the Summit mine produced copper to the gross value of 1,250,000 and has the record of being one of the few mines that paid for itself from the start.

In 1910, owing to prevailing low price of copper, the increasing depth of the workings, and the approaching necessity of installing additional equipment, the mine was forced to close down.

It was then optioned to the Summit Copper Company, of Duluth, who took over the property in June, 1910, and immediately began work. The vertical shaft was sunk from the third to the seventh level, the levels being from 75 to 80 feet apart vertically.

The Pasquale vein, considered the more promising of the two principal veins on the property, was cut on the fourth, fifth and sixth levels and considerable drifting done on the vein on the fourth level, by which several lenses of almost pure chalcopryite ore besides considerable low grade ore were opened up. There was no drifting done on the fifth and sixth levels, although the showing was even better than where the vein was cut on the fourth level.

In October, 1911, the mine was closed down, and in December the option was relinquished by the Summit Copper Company.

While no statement has been issued to the shareholders, it is generally believed that the funds gave out and that the company was not financed strongly enough to work the mine on a scale large enough for profitable operation. It was believed by the Summit management that, in order to make the mine pay it would be necessary to mine and concentrate the low grade, or milling ore, a considerable amount of which accompanied the high grade of shipping ore, in addition to sorting and shipping the high grade ore.

The Gibson Copper Company now has a few men at work keeping the mine unwatered, but it is probable that active development will not be resumed for several months.—Globe Silver Belt.

Gillis Tells About Butte Consolidation.

A Helena Montana dispatch says:—In the hearing in the suit of Peter Geddes and others against the Anaconda Copper Mining company, brought for the purpose of setting aside the sale of the Alice Gold & Silver Mining company to the Anaconda company, John Gillis, general manager of the Anaconda, called to the stand by the plaintiff in efforts to show that the Amalgamated and Anaconda companies are operating in violation of the Sherman anti-trust act, testified today concerning the purchase by the Amalgamated of the Heine properties at the conclusion of Butte's famous "copper war." Gillis testified that Heine was paid 10,500,000 for his holdings, making public for the first time the basis of settlement. He also testified that Former Senator W. A. Clark was paid 5,000,000 for the properties he sold the Amalgamated two years ago.

The complainants completed the introduction of testimony today and T. J. Walsh, attorney for the plaintiffs, as the first witness called by the defense. Mr. Walsh was asked where he secured the information on which he drew the complaint in the suit, the complaint being in detail the purported history of the organization of the Amalgamated and the efforts to form a combine.

Mr. Walsh replied that he had secured this information from his clients in New York, Chicago and Salt Lake, as well as "from other sources."

The taking of testimony in the hearing will be completed tomorrow.